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# IN THE UNSTED SEATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Atty. Docket No.:

004770.00661

Richard CROYLE

Patent No.: 6,904,478

Group Art Unit:

2112

Issued:

June 7, 2005

Examiner:

Paul R. Myers

For:

TRANSCEIVER INTERFACE

REDUCTION

## **NOTICE OF FILING POWER OF ATTORNEY**

Commissioner for Patents Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314

Sir:

Attached hereto please find a Power of Attorney to Prosecute Applications Before the USPTO executed on behalf of Nokia Corporation, assignee of this application. Also attached is a Statement Under 37 CFR 3.73(b). Please direct all future correspondence in this patent to

# Customer Number 22907.

Respectfully submitted,

BANNER & WITCOFF, LTD.

Dated: May 3, 2006

By:

H. Wayne Porter

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Encl.

PTO/SB/80 (04-05)
Approved for use through 11/30/2005, OMB 0851-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached stated 37 CFR 3.73(b),	ement under
I hereby appoint:	
Practitioners associated with the Customer Number: 22907	
OR	
Practitioner(s) named below (If more than ten patent practitioners are to be named, then a customer number must be u	sed):
Name Registration Name Number	Registration Number
as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in co any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment attached to this form in accordance with 37 CFR 3.73(b).	nnection with documents
Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:	
X The address associated with Customer Number: 22907	
OR	
Firm or Individual Name	
Address	
City State Zip	
Country	
Telephone Email	
<u> </u>	
Assignee Name and Address:  Nokia Corporation  Keilalahdentie 4  FIN-02150, Espoo  FINLAND	
A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is r filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be comple the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the and must identify the application in which this Power of Attorney is to be filed.	ted by one of
SIGNATURE of Assignee of Record  The individual whose signature and title is supplied below is authorized to act on behalf of the assignee	
Signature Date 14 October	r 2005
Name Sami Saru Telephone + 358 50	
Title IPR External Associates Manager	

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/96 (04-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TETRISON TEMENT UNDER 37 CFR 3.73(b)		
Applicant/Patent Owner: Richard Croyle		
	d/Issue Date: June 7, 2005	
Entitled: TRANSCEIVER INTERFACE REDUCTION		
Nokia Corp. , a Corporation		
(Name of Assignee) (Type of Assigne	ee, e.g., corporation, partnership, university, government agency, etc.)	
states that it is:		
<ol> <li>the assignee of the entire right, title, and interest; or</li> </ol>		
2. an assignee of less than the entire right, title, and i	nterest	
The extent (by percentage) of its ownership inte	rest is %	
in the patent application/patent identified above by virtue of either	er:	
An assignment from the inventor(s) of the patent application recorded in the Patent and Trademark Office at Reel attached.	on/patent identified above. The assignment was, Frame, or for which a copy thereof is	
OR ·		
B. A chain of title from the inventor(s), of the patent application shown below:	on/patent identified above, to the current assignee as	
From: Richard Croyle     To: Noking     The document was recorded in the United States Pail     Reel 011602, Frame 0882, or for which a copy thereof		
2. From: Nokia Mobile Phones Limited To: Nokia The document was recorded in the United States Para Reel 017555, Frame 0687, or for which a copy there		
3. From: To:	_	
The document was recorded in the United States Par Reel, Frame, or for which a copy thereo		
Additional documents in the chain of title are listed or	n a supplemental sheet.	
Copies of assignments or other documents in the chain of titl     [NOTE: A separate copy (i.e., the original assignment docume must be submitted to Assignment Division in accordance with recorded in the records of the USPTO.      See MPEP 302.8]	ent or a true copy of the original document)	
The undersigned (whose title is supplied below) is empowered to	sign this statement on behalf of the assignee.	
May 3, 2006	- $M$ $V$ $A$	
Date	Signature	
202-824-3000	H. Wayne Porter	
Telephone Number	Typed or printed name	
	Attorney of Record	
	Title	

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



MAY 25, 2001

PTAS

ANTONELLI, TERRY, STOUT & KRAUS, LLP CARL I. BRUNDIDGE 1300 NORTH SEVENTEETH STREET SUITE 1800 ARLINGTON, VA 22209 UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231



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RECORDATION DATE: 03/12/2001

REEL/FRAME: 011602/0882

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

CROYLE, RICHARD

DOC DATE: 12/08/2000

ASSIGNEE:

NOKIA MOBILE PHONE LIMITED KEILALAHDENTIE 4 02150 ESPOO, FINLAND

SERIAL NUMBER: 09803036

FILING DATE: 03/12/2001

PATENT NUMBER:

ISSUE DATE:

LAZENA MARTIN, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

03-23-20	001 DOCKEL NO.:367.39780X00
FÖRM PTO-1395 1-31-97 0 3 15 1 6460	SHEET U.S. DEPARTMENT OF COMMER Patent and Trademark Of
To the Honorable Commissioner of Patents and Temerarks: Pl	lease record the attached original documents or copy thereof.
1. Name of conveying party(ies): Richard CROYLE  3/12/0	2. Name and address of receiving party(ies): Name: Nokia Mobile Phone Limited  Street Address: Keilalahdentie 4
Additional name(s) of conveying party(ies) attached? Yes X No	A Section of the sect
3. Nature of conveyance:  Assignment	City: 02150 Espoo
☐ Security Agreement ☐ Change of Name ☐ Other	Country: Finland
Execution Date: Dec. 8, 2000	Additional name(s) & address(es) attached?  Yes X No
4. Application number(s) or patent number(s):	
If this document is being filed together with a new application A. Patent Application No.(s)	B. Patent No.(s)
Additional numbers a	ttached? Yes X No
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1
Name: ANTONELLI, TERRY, STOUT & KRAUS, LLP	7. Total fee (37 CFR 3.41)\$40.00
Internal Address:	Enclosed  Any deficiencies may be charged to deposit account  Authorized to be charged to deposit account
Street Address: 1300 North Seventeenth Street	8. Deposit account number: 01-2135
Suite 1800  City: Arlington State: VA Zip: 22209	(Attach duplicate copy of this page if paying by deposit account)
DO NOT US	SE THIS SPACE
9. Statement and signature.  To the best of my knowledge and belief, the foregoing in of the original document.	nformation is true and correct and any attached copy is a true copy
Carl I. Brundidge Name of Person Signing Attorney Registration No. 29,621 Total number of pages including cover sheet, attachments, and document: 2	March 12, 2001 Date
OMB No. 0651-0011 (exp. 4/94)	
3/14/2001 EHAILU 00000023 09803036	
2 FC:581 40.00 OP	

### ASSIGNMENT

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvements in and relating to Transceiver Interface Reduction

$\boxtimes$		ch an application for Letters Paten ark Office was executed on even d		ed States Patent and
	for which	ch U.S. Application Serial No. ark Office on		was filed in the U.S. Patent and
		ch an International Application States. was filed on	as	, designating the
AND V	VHEREAS	Nokia Mobile Phone Limited Keilalahdentie 4 02150 Espoo Finland		

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to

ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Antonneli, Terry, Stout, Kraus, LLP the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

1	FULL NAME OF SOLE OR FIRST	INVENTOR'S SIGNATURE	DATE
	NAMED INVENTOR	(1)	8/12/00
	Richard Croyle	. He	(12/8/00 - US)
2	FULL NAME OF SECOND NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
3	FULL NAME OF THIRD NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
4	FULL NAME OF FOURTH NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
5	FULL NAME OF FIFTH NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

MAY 02, 2006

PTAS

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H. WAYNE PORTER 1001 G STREET, NW 11TH FLOOR WASHINGTON, DC 20001-4597

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RECORDATION DATE: 05/02/2006

REEL/FRAME: 017555/0687

NUMBER OF PAGES: 22

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 004770.00661

ASSIGNOR:

NOKIA MOBILE PHONES LIMITED DOC DATE: 10/02/2001

ASSIGNEE:

NOKIA CORPORATION KEILALAHDENTIE 4 ESPOO, FINLAND 02150

SERIAL NUMBER: 09803036 PATENT NUMBER: 6904478

FILING DATE: 03/12/2001 ISSUE DATE: 06/07/2005

TITLE: TRANSCEIVER INTERFACE REDUCTION

017555/0687 PAGE 2

ANTIONE ROYALL, EXAMINER ASSIGNMENT SERVICES BRANCH PUBLIC RECORDS DIVISION

### PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

# 05/02/2006 500099702



SUBMISSION TYPE: NEW ASSIGNMENT

### **CONVEYING PARTY DATA**

**NATURE OF CONVEYANCE:** 

Name	Execution Date
Nokia Mobile Phones Limited	10/02/2001

**CHANGE OF NAME** 

### RECEIVING PARTY DATA

Name:	Nokia Corporation
Street Address:	Keilalahdentie 4
City:	Espoo
State/Country:	FINLAND
Postal Code:	02150

#### PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	6904478

### **CORRESPONDENCE DATA**

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Washington, DISTRICT OF COLUMBIA 20001-4597

ATTORNEY DOCKET NUMBER: 004770.00661

NAME OF SUBMITTER: H. Wayne Porter

Total Attachments: 20

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